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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,345	02/18/2004	Kenji Kojima	9319A-000688	9215

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EXAMINER	
GOLDBERG, BRIAN J	

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/781,345	KOJIMA, KENJI	
	Examiner	Art Unit	
	Brian Goldberg	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/18/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Specification

1. The disclosure is objected to because of the following informalities: In paragraph [0003] on page 1, "10-260367" should be "10-260307".

Appropriate correction is required.

Claim Objections

2. Claim 2 is objected to because of the following informalities: The parenthetical text in the claim is improper. Also, there is insufficient antecedent basis for the limitation "the work placing portion" since it is only referred to as a work placing previously. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claims 5 and 7, once manufactured, how the electro-optical apparatus is made does not distinguish the apparatus. Also, the manufacture of the electro-optical apparatus and the electronic device comprising the electro-optical apparatus is an intended use of the droplet jetting apparatus and is therefore not considered a patentable limitation.

6. Regarding claim 6, the claim is indefinite because it does not set forth the steps necessary to manufacture the electro-optical apparatus, and since the

claim does not set forth any steps involved in the method, it is unclear what method applicant is intending to encompass.

Claim Rejections - 35 USC § 102

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuronuma et al. (US 5831646).

8. Regarding claim 1, Kuronuma et al. disclose "A droplet jetting apparatus comprising: a main body (1206 of Fig 16 and col 7 ln 29); a work placing on which a work is to be placed (12 and 13 of Fig 1); a head unit having at least one droplet jetting head for jetting droplets of a liquid to be used onto the work (1, 1C, 1M, 1Y, 1B of Fig 1); a head unit support for supporting the head unit (16 of Fig 1); a head unit moving mechanism for moving the head unit support in a horizontal direction with respect to the main body (17 and arrow B of Fig 1); a head driving control section for controlling driving of the at least one droplet jetting head (26 of Fig 1); a control unit for controlling the head driving control section, the control unit storing drawing pattern data including a plurality of patterns (col 7 ln 37-45); first transmission means which connects the control unit to the head driving control section for transmitting the drawing pattern data from the control unit to the head driving control section (see Fig 3 and col 8 ln 11-13); and second transmission means which connects the head driving control section

to the at least one droplet jetting head for transmitting the drawing pattern data from the head driving control section to the at least one droplet jetting head (see Fig 3, col 8 ln 11-12 and col 2 ln 50-53); wherein the droplet jetting apparatus is constructed so as to form a predetermined pattern in the plurality of patterns onto the work by jetting droplets to the work from the at least one droplet jetting head while moving the work placing portion and the head unit relatively to each other (col 6 ln 66 – col 7 ln 28 and col 2 ln 23-29); characterized in that the head driving control section (26 of Fig 1) is provided on the head unit support (16 of Fig 1) so that the head driving control section is moved in a horizontal direction with respect to the main body by the head unit moving mechanism (17 of Fig 1 and see Fig 3)."

9. Regarding claim 2, Kuronuma et al. disclose "a Y-axis direction moving mechanism (14, 12, and 13 of Fig 1) for moving the work placing portion in one horizontal direction with respect to the main body (arrow A of Fig 1) (hereinafter, the one horizontal direction is referred to as Y-axis direction) wherein the head unit moving mechanism (17 of Fig 1) moves the head unit support in another horizontal direction (arrow B of Fig 1) which is perpendicular to the Y-axis direction (hereinafter, this direction is referred to as X-axis direction)."

10. Regarding claim 3, Kuronuma et al. disclose "one of the X-axis and Y-axis directions is defined as a main scan direction and the other is defined as a sub scan direction, and wherein the droplet jetting apparatus is constructed so as to form the predetermined pattern onto the work by moving the work placing portion and the head unit relatively (Fig 1, col 6 ln 66 – col 7 ln 28 and col 2 ln 23-29)."

The head unit and work placing move relatively to each other in main scan direction (arrow B) and sub-scan direction (arrow A), as seen in figure 1.

11. Regarding claim 4, Kuronuma et al. disclose "one of the X-axis and Y-axis directions is defined as a main scan direction and the other is defined as a sub scan direction, and wherein the droplet jetting apparatus is constructed so as to form the predetermined pattern onto the work by moving the work placing portion and the head unit relatively (Fig 1, col 6 ln 66 – col 7 ln 28 and col 2 ln 23-29)." The head unit and work placing move relatively to each other in main scan direction (arrow B) and sub-scan direction (arrow A), as seen in figure 1.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuronuma et al. in view of Fukushima et al. (US 5444468).

14. Kuronuma et al. disclose "wherein the head unit moving mechanism (17 of Fig 1) moves the head unit support in another horizontal direction (arrow B of Fig 1) which is perpendicular to the Y-axis direction (hereinafter, this direction is referred to as X-axis direction)" and "one of the X-axis and Y-axis directions is defined as a main scan direction and the other is defined as a sub scan direction, and wherein the droplet jetting apparatus is constructed so as to form the

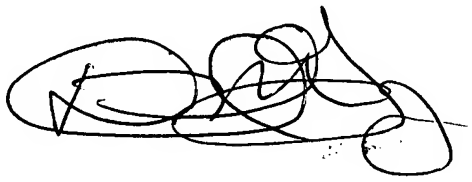
predetermined pattern onto the work by moving the work placing portion and the head unit relatively (Fig 1, col 6 ln 66 – col 7 ln 28 and col 2 ln 23-29)." Thus Kuronuma et al. meet the claimed invention except "a Y-axis direction moving mechanism for moving the work placing portion in one horizontal direction with respect to the main body (hereinafter, the one horizontal direction is referred to as Y-axis direction)."

15. Fukushima et al. teach providing "a Y-axis direction moving mechanism for moving the work placing portion in one horizontal direction with respect to the main body (hereinafter, the one horizontal direction is referred to as Y-axis direction) (101 and arrow A of Fig 4)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide a moving mechanism to move the work placing portion in one horizontal direction. One would have been motivated to so modify Kuronuma et al. for the benefit of forming an image of a uniform image quality as stated by Fukushima et al. by allowing the work placing portion to move in a horizontal direction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbott can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BJG

December 9, 2005

David Gray
Primary Examiner